SAFETY DATA SHEET

Product Name: **Alpha Surfaces**

Date of SDS preparation: **10 November 2023**

1. IDENTIFICATION

Product Identifier: Alpha Surfaces
Manufacturer/Importer: Alpha Surfaces
Address: 13-15 Enterprise Street, Kunda Park, Q. 4556 AUSTRALIA
Telephone: (07) 5445 5183
Emergency phone number: 1300 257 420

2. HAZARD IDENTIFICATION

2.1 Appearance / Odour: Artificial Surfaces with no odour.
The Alpha Surfaces, in its finished state as supplied, is classified as non-hazardous under normal conditions and does not pose any inhalation, ingestion, skin, or eye hazards. However, the generation of dust during cutting, grinding or machining processes may contain trace amounts of respirable crystalline silica particles capable of penetrating deep into the lungs upon inhalation. These particles have the potential to cause respiratory and pulmonary damage. Individuals involved in such activities must adhere to health and safety guidelines and take necessary precautions prior to commencing work. Although this product contains less than 1% crystalline silica content, any inhaled dust should be considered detrimental to one's health.
Take necessary precautions - Use wet cutting method; Wear a Class P3 respirator.
Refer to Section 8 of the SDS for more detailed information.

2.2 Signal Word: DANGER

GHS08 (Health Hazard)
Category 1A/1B/2 (Carcinogenicity)
(H334; H350; H372)

GHS07 (Health Hazard)
Category 3 (Respiratory tract irritation)
(H319; H335)

HAZARD STATEMENTS:
H319: Cause serious eye irritation
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335: May cause respiratory irritation
H350: May cause cancer
H372: Causes damage to organs through prolonged and repeated exposure

2.3 Potential Health Effects:

Acute Eye: Product in finished form does not present a health hazard via this route of entry. Dust and flying particles generated during cutting, grinding and forming may cause irritation and injury.

Acute Skin: Dusts generated from this product may cause skin irritation.

Acute Inhalation: Dusts from this product may cause irritation to respiratory tract, nose, throat and lungs.

Acute ingestion: Not considered a potential health hazard via this route of entry. This product may cause gastrointestinal irritation if dust is swallowed.

Aggravation of Pre-existing Conditions: Not Determined.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

The composition of this material includes amorphous material (glass sand and glass powder are not crystalline types of free oxides (silica)), polyester resin, pigments.

Component		CAS #	% Composition	% Composition
Amorphous recycled glass	**Glass sand / Glass powder**	**65997-17-3**	**79-90**	**79-90**
Unsaturated Polyester Resin	**UPR**	**26123-45-5**	**8-16**	**8-16**
Pigments	**TiO_2**	**1317-80-2**	**≤1**	**0-2**
	Fe_2O_3	**1332-37-2**	**≤1**	
Additives	**KH570**	**2530-85-0**	**≤1.8**	**1.6-3**
	TBPO	**3006-82-4**	**≤1.2**	

Notes: Although no crystalline silica is added in the formula, <1% crystalline silica may be present due to contamination or chemical compound reactions during production.

4. FIRST AID MEASURES

Eye Exposure: Immediately flush eyes with copious amounts of water for a minimum of 15 minutes. Seek immediate medical attention if adverse effect occurs.

Skin Exposure: Wash skin with soap and water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Seek medical attention if adverse effects occur.

Inhalation: Move person to fresh air. If necessary, use artificial respiration.

Ingestion: Rinse your mouth and make sure to drink plenty of water. If the material is swallowed, seek medical attention or advice.

5. FIRE FIGHTING MEASURES

Alpha Surfaces can be combusted only with difficulty. Decomposition products resulting from the polymer and pigments degrading at elevated temperatures include various hydrocarbons, carbon dioxide, carbon monoxide and water. Fumes of metal oxides and mica particles could also be released.

Extinguishing Media:
Water, Dry Chemical, CO2, Foam.
Fire Fighting Instructions:
Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.

6. ACCIDENTIAL RELEASE MEASURES

Cleanup and Disposal of Spill: Solid slabs can simply be gathered as necessary. If large amounts of dust or waste are created by the cutting process, then vacuum or sweep up material avoiding dust generation by dampening spilled material with water to avoid airborne dust. Wear sufficient respiratory protection and protective clothing where necessary. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or local Waste Management Authority. Dispose of waste in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

Handling/Storage: Avoid breathing dust. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water. Good industrial hygiene practices should be followed when handling this material. This product is heavy and breakable. Handle with care to avoid injury and prevent damage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters:
Exposure standards - Refer to local state regulators.

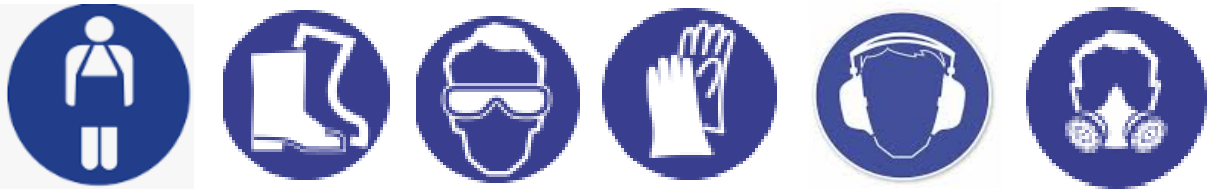
Ingredient	Reference	TWA		STEL	
		ppm	mg/m^3	ppm	mg/m^3
Calcium oxide	**SWA [AUS]**	--	2	--	--
Calcium oxide	SWA [Proposed]	--	1	--	--
Emery (dust) (a)	**SWA [AUS]**	--	10	--	--
Iron oxide fume (Fe_2O_3) (as Fe)	**SWA [AUS]**	--	5	--	--
Magnesium oxide (fume)	**SWA [AUS]**	--	10	--	--
Non-respirable fibres, inspirable dust	**SWA [AUS]**	--	2	--	--
Quartz (respirable dust)	**SWA [AUS]**	--	0.05	--	--
Quartz (respirable dust) (Precautionary advice)	**WorkSafe [Vic]**	--	0.02	--	--
Synthetic mineral fibres, respirable fibres	**SWA [AUS]**	--	0.5 f/ml	--	--
Titanium dioxide	**SWA [AUS]**	--	10	--	--
Titanium dioxide (a)	**SWA [AUS]**	--	10	--	--
Titanium dioxide (inhalable)	SWA [Proposed]	--	1	--	--

8.2 Engineering Controls:

Avoid inhalation. Use in well-ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Only use wet methods for cutting, polishing, sanding, grinding, and drilling. Maintain dust levels below the recommended exposure standard.

8.3 Personal Protective Equipment (PPE):

Body:	During fabrication wear an apron. While handling, fabricating and installing, wear safety footwear.
Eye / Face:	If cutting or sanding with potential for dust generation, wear dust-proof goggles.
Hands:	Wear PVC, rubber, or cotton gloves when handling material to prevent skin contact.
Hearing Protection:	
Respiratory:	Avoid uncontrolled dry cutting, sanding, polishing, grinding, or drilling. If alterations are unavoidable use a half-faced (negative pressure) mask with minimum P2/N95 particle respirator. Also use tools which have water suppression or tools with dust extraction H class rating. For further details, it is recommended to consult with relevant state WorkSafe offices.



Always follow the recommended procedures and personal protective equipment to ensure a safe working environment. For additional information, consult local regulatory agencies and product-specific documentation.

9. PHYSICAL AND CHEMICAL PROPERETIES

Physical Appearance:	Artificial stone
Odour:	None
pH:	N/A
Specific Gravity:	2.2 - 2.5
Water Solubility:	Insoluble
Flash Point:	490 °C
Melting Point:	N/A
Boiling Point:	N/A
Vapor Pressure:	N/A
% Volatiles:	N/A
Viscosity:	N/A

10. STABILITY AND REACTIVITY

Chemical Stability: The material is stable under normal conditions.
Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.
Conditions to Avoid: Avoid contact with strong oxidizing agents.
Materials / Chemicals to be Avoided: This product is incompatible with hydrofluoric acid. Silicate will dissolve in hydrofluoric acid and produce the corrosive gas silicon tetrafluoride.
Hazardous Decomposition Products: Upon decomposition, various hydrocarbons, carbon dioxide, carbon monoxide fumes, and water may be released.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

No acute or chronic effects are known from exposure to the intact product.
Primary Routes of Exposure: None for intact product. Inhalation and potential exposure to eyes, hands, lungs or other body parts if contact is made with dust emitted from the fabrication process.
Acute Effects: Breathing dust may cause acute respiratory irritation. Skin and eye contact may cause irritation.

Respiratory effects:
Exposure to respirable crystalline particles of a very small size (< 10□m) may cause silicosis, an incurable, progressively disabling and sometimes fatal lung disease. Silica dust particles become trapped in lung tissue, causing inflammation and scarring and reducing the lungs' ability to take in oxygen. Symptoms of silicosis can include progressive shortness of breath, coughing and fatigue. Safety measures including wet processing and the use of effective respiratory protection will reduce the burden of inhaled dust and prevent the disease.

Carcinogenicity:
The following components are listed by GHS, IARC, NTP, OSHA or ACGIH as carcinogens.

Material	GHS	IARC	NTP	OSHA	ACGIH
Silica, Crystalline (Quartz and cristobalite)	Carcinogen - Cat 1A	Group 1 carcinogenic to humans	Known to be a carcinogen	Yes. Regulates as a carcinogen	A2 suspected human carcinogen

Sensitisation: No respiratory sensitizing effects known.
Mutagenicity: No data.
Reproductive Effects: No data.
Developmental Effects: No data.

12. ECOLOGOCAL INFORMATION

Environmental Fate: Not Determined
Environmental Toxicity: Not Determined

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Whatever cannot be saved for recovery, or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

Not classified as a dangerous good under the ADG Code.

15. REGULATORY INFORMATION

Safe Work Australia
Relevant WorkSafe authorities and legislation, including the Code of practice – Preparation of safety data sheets for hazardous chemicals.
Follows the GHS guidelines.
U.S. Federal Regulations
TSCA Inventory Status: In compliance with TSCA Inventory requirements for commercial purposes.

16. OTHER INFORMATION

National Fire Protection Association NFPA(R) and Hazardous Materials Identification System (HMIS) Hazard Ratings:

Health Hazard: 1
Flammability: 0
Reactivity: 0

Key Legend Information:

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
ADG Code	The Australian Code for the Transportation of Dangerous Goods by Road and Rail.	OSHA	Occupational Safety and Health Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals	PEL	Permissible Exposure Limit
IARC	International Agency for Research on Cancer	STEL	Short Term Exposure Limit
IDLH	Immediately Dangerous to Life and Health	TLV	Threshold Limit Value
N/A	Not Applicable	TSCA	Toxic Substances Control Act (USA)
ND	Not Determined	TWA	Time Weighted Average

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

End of SDS